RR

OAK RIDGE GASEOUS DIFFUSION PLANT
K-25 PROCESS SUPPORT DIVISION
URANIUM HEXAFLUORIDE ANALYSES

GDP-0564

Producer: COGEMA
Date received in laboratory: 30-MAY-1984

Report Date: 2-JUL-1984
Sample Number: 175161
Cylinder Number: DV 42

Property	Specification Limits	Analysis	
	Minimum		
Uranium Hexafluoride	99.5	99.98	Weight percent
Uranium		67.60	Weight percent
	Maximum		
Cylinder Vapor Pressure	75	---	psia
Hydrocarbons, chlorocarbons, partially substituted halohydrocarbons	0.01	---	Mole Percent
Antimony	1	<1	uG/G U-normal
Bromine	5	<5	uG/G U-normal
Chlorine	100	10	uG/G U-normal
Niobium	1	<0.2	uG/G U-normal
Phosphorus	50	<20	uG/G U-normal
Ruthenium	1	<1	uG/G U-normal
Silicon	100	---	uG/G U-normal
Tantalum	1	<0.3	uG/G U-normal
Titanium	1	<0.3	uG/G U-normal
Elements forming non-volatile fluorides	300	37.0	uG/G U-normal
Chromium	1500	<510.0	uG/G U-235
Molybdenum	200	<50.0	uG/G U-235
Tungsten	200	<50.0	uG/G U-235
Vanadium	200	<30.0	uG/G U-235
Uranium-233	500	<300	uG/G U-235
Uranium-232	0.110	0.018	uG/G U-235
Boron equivalent cross section	8	NONE DET	uG/G U-normal
Fission product gamma	20	<5	Percent of
Fission product beta	10	0.22	aged natural U
Transuranic alpha	1500	2.0	DPM alpha/G U
Technetium		<0.005	uG/G U-normal
Uranium-234		.012	Weight Percent
Uranium-235		0.9777	Weight Percent
Uranium-236		0.18	Weight Percent

** Exceeds Specifications
R Revised Result
The following samples have been composited:
175152, 175153, 175155, 175156, 175157
175158, 175159, 175160, 175161, 175162
This report has been printed 1 times.

Reported by:

OR0014238

10 RR

5/89

OAK RIDGE GASEOUS DIFFUSION PLANT
K-25 PROCESS SUPPORT DIVISION
URANIUM HEXAFLUORIDE ANALYSES

Producer: COGEMA
Date received in laboratory: 31-MAY-1984

Report Date: 19-JUL-1984
Sample Number: 175163
Cylinder Number: DU-601

Property	Specification Limits	Analysis	
	Minimum		
Uranium Hexafluoride	99.5	100.00	Weight percent
Uranium		67.62	Weight percent
	Maximum		
Cylinder Vapor Pressure	75	---	psia
Hydrocarbons, chlorocarbons, partially substituted halohydrocarbons	0.01	<0.01	Mole Percent
Antimony	1	<1	uG/G U-normal
Bromine	5	<5	uG/G U-normal
Chlorine	100	<10	uG/G U-normal
Niobium	1	<0.2	uG/G U-normal
Phosphorus	50	<20	uG/G U-normal
Ruthenium	1	<1	uG/G U-normal
Silicon	100	30	uG/G U-normal
Tantalum	1	<0.3	uG/G U-normal
Titanium	1	<0.3	uG/G U-normal
Elements forming non-volatile fluorides	300	21.0	uG/G U-normal
Chromium	1500	<510.0	uG/G U-235
Molybdenum	200	<50.0	uG/G U-235
Tungsten	200	<50.0	uG/G U-235
Vanadium	200	<30.0	uG/G U-235
Uranium-233	500	<300	uG/G U-235
Uranium-232	0.110	0.028	uG/G U-235
Boron equivalent cross section	8	NONE DET	uG/G U-normal
Fission product gamma	20	12.1	Percent of
Fission product beta	10	6.5	aged natural U
Transuranic alpha	1500	1.4	DPM alpha/G U
Technetium		<0.005	uG/G U-normal
Uranium-234		.012	Weight Percent
Uranium-235		0.9780	Weight Percent
Uranium-236		0.18	Weight Percent

** Exceeds Specifications
R Revised Result
The following samples have been composited:
175163, 175164, 175165, 175166, 175167
175168, 175169, 175170, 175171, 175172
This report has been printed 1 times.

Reported by:

23199

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RR.

5/84

OAK RIDGE GASEOUS DIFFUSION PLANT
K-25 PROCESS SUPPORT DIVISION
URANIUM HEXAFLUORIDE ANALYSES

Producer: COGEMA
Date received in laboratory: 31-MAY-1984

Report Date: 2-JUL-1984
Sample Number: 175162
Cylinder Number: CX-614

Property	Specification Limits	Analysis	
	Minimum		
Uranium Hexafluoride	99.5	100.00	Weight percent
Uranium		67.62	Weight percent
	Maximum		
Cylinder Vapor Pressure	75	---	psia
Hydrocarbons, chlorocarbons, partially substituted halohydrocarbons	0.01	---	Mole Percent
Antimony	1	<1	uG/G U-normal
Bromine	5	<5	uG/G U-normal
Chlorine	100	10	uG/G U-normal
Niobium	1	<0.2	uG/G U-normal
Phosphorus	50	<20	uG/G U-normal
Ruthenium	1	<1	uG/G U-normal
Silicon	100	---	uG/G U-normal
Tantalum	1	<0.3	uG/G U-normal
Titanium	1	<0.3	uG/G U-normal
Elements forming non-volatile fluorides	300	15.0	uG/G U-normal
Chromium	1500	<510.0	uG/G U-235
Molybdenum	200	<50.0	uG/G U-235
Tungsten	200	<50.0	uG/G U-235
Vanadium	200	<30.0	uG/G U-235
Uranium-233	500	---<300	uG/G U-235
Uranium-232	0.110	0.032	uG/G U-235
Boron equivalent cross section	8	NONE DET	uG/G U-normal
Fission product gamma	20	<5	Percent of
Fission product beta	10	0.22	aged natural U
Transuranic alpha	1500	2.0	DPM alpha/G U
Technetium		<0.005	uG/G U-normal
Uranium-234		---.012	Weight Percent
Uranium-235		0.9793	Weight Percent
Uranium-236		---.18	Weight Percent

** Exceeds Specifications
R Revised Result
The following samples have been composited:
175152, 175153, 175155, 175156, 175157
175158, 175159, 175160, 175161, 175162
This report has been printed 1 times.

Reported by:

S P Meadows

25126

RR

OAK RIDGE GASEOUS DIFFUSION PLANT
K-25 PROCESS SUPPORT DIVISION
URANIUM HEXAFLUORIDE ANALYSES

Producer: COGEMA
Date received in laboratory: 04-MAY-1984

Report Date: 2-JUL-1984
Sample Number: 175159
Cylinder Number: CEA 231

Property	Specification Limits	Analysis	
	Minimum		
Uranium Hexafluoride	99.5	99.96	Weight percent
Uranium		67.59	Weight percent
	Maximum		
Cylinder Vapor Pressure	75	---	psia
Hydrocarbons, chlorocarbons, partially substituted halohydrocarbons	0.01	---	Mole Percent
Antimony	1	<1	uG/G U-normal
Bromine	5	<5	uG/G U-normal
Chlorine	100	10	uG/G U-normal
Niobium	1	<0.2	uG/G U-normal
Phosphorus	50	<20	uG/G U-normal
Ruthenium	1	<1	uG/G U-normal
Silicon	100	---	uG/G U-normal
Tantalum	1	<0.3	uG/G U-normal
Titanium	1	<0.3	uG/G U-normal
Elements forming non-volatile fluorides	300	14.0	uG/G U-normal
Chromium	1500	<470.0	uG/G U-235
Molybdenum	200	<50.0	uG/G U-235
Tungsten	200	<50.0	uG/G U-235
Vanadium	200	<30.0	uG/G U-235
Uranium-233	500	<200	uG/G U-235
Uranium-232	0.110	0.060	uG/G U-235
Boron equivalent cross section	8	NONE DET	uG/G U-normal
Fission product gamma	20	<5	Percent of
Fission product beta	10	0.22	aged natural U
Transuranic alpha	1500	2.0	DPM alpha/G U
Technetium		<0.005	uG/G U-normal
Uranium-234		.016	Weight Percent
Uranium-235		1.064	Weight Percent
Uranium-236		.33	Weight Percent

** Exceeds Specifications
R Revised Result
The following samples have been composited:
175152, 175153, 175155, 175156, 175157
175158, 175159, 175160, 175161, 175162
This report has been printed 1 times.

Reported by:

S. A. Woodfin

120

RR

OAK RIDGE GASEOUS DIFFUSION PLANT
K-25 PROCESS SUPPORT DIVISION
URANIUM HEXAFLUORIDE ANALYSES

Producer: COGEMA
Date received in laboratory: 02-MAY-1984

Report Date: 18-JUN-1984
Sample Number: 175152
Cylinder Number: COG-622

Property	Specification Limits	Analysis	
	Minimum		
Uranium Hexafluoride	99.5	100.00	Weight percent
Uranium		67.63	Weight percent
	Maximum		
Cylinder Vapor Pressure	75	---	psia
Hydrocarbons, chlorocarbons, partially substituted halohydrocarbons	0.01	<0.01	Mole Percent
Antimony	1	<1	uG/G U-normal
Bromine	5	<5	uG/G U-normal
Chlorine	100	10	uG/G U-normal
Niobium	1	<0.2	uG/G U-normal
Phosphorus	50	<20	uG/G U-normal
Ruthenium	1	<1	uG/G U-normal
Silicon	100	6	uG/G U-normal
Tantalum	1	<0.3	uG/G U-normal
Titanium	1	<0.3	uG/G U-normal
Elements forming non-volatile fluorides	300	16.0	uG/G U-normal
Chromium	1500	<470.0	uG/G U-235
Molybdenum	200	<50.0	uG/G U-235
Tungsten	200	<50.0	uG/G U-235
Vanadium	200	<30.0	uG/G U-235
Uranium-233	500	<300	uG/G U-235
Uranium-232	0.110	0.070	uG/G U-235
Boron equivalent cross section	8	NONE DET	uG/G U-normal
Fission product gamma	20	<5	Percent of
Fission product beta	10	0.22	aged natural U
Transuranic alpha	1500	2.0	DPM alpha/G U
Technetium		<0.005	uG/G U-normal
Uranium-234		.017	Weight Percent
Uranium-235		1.064	Weight Percent
Uranium-236		.34	Weight Percent

** Exceeds Specifications
R Revised Result
The following samples have been composited:
175152, 175153, 175155, 175156, 175157
175158, 175159, 175160, 175161, 175162
This report has been printed 2 times.

Reported by:

S M Cadfin

RR

OAK RIDGE GASEOUS DIFFUSION PLANT
K-25 PROCESS SUPPORT DIVISION
URANIUM HEXAFLUORIDE ANALYSES

Producer: COGEMA
Date received in laboratory: 02-MAY-1984

Report Date: 2-JUL-1984
Sample Number: 175158
Cylinder Number: COG-696

Property	Specification Limits	Analysis	
	Minimum		
Uranium Hexafluoride	99.5	99.97	Weight percent
Uranium		67.60	Weight percent
	Maximum		
Cylinder Vapor Pressure	75	---	psia
Hydrocarbons, chlorocarbons, partially substituted halohydrocarbons	0.01	---	Mole Percent
Antimony	1	<1	uG/G U-normal
Bromine	5	<5	uG/G U-normal
Chlorine	100	10	uG/G U-normal
Niobium	1	<0.2	uG/G U-normal
Phosphorus	50	<20	uG/G U-normal
Ruthenium	1	<1	uG/G U-normal
Silicon	100	---	uG/G U-normal
Tantalum	1	<0.3	uG/G U-normal
Titanium	1	<0.3	uG/G U-normal
Elements forming non-volatile fluorides	300	19.0	uG/G U-normal
Chromium	1500	<470.0	uG/G U-235
Molybdenum	200	<50.0	uG/G U-235
Tungsten	200	<50.0	uG/G U-235
Vanadium	200	<30.0	uG/G U-235
Uranium-233	500	<400	uG/G U-235
Uranium-232	0.110	0.046	uG/G U-235
Boron equivalent cross section	8	NONE DET	uG/G U-normal
Fission product gamma	20	<5	Percent of
Fission product beta	10	0.22	ased natural U
Transuranic alpha	1500	2.0	DPM alpha/G U
Technetium		<0.005	uG/G U-normal
Uranium-234		.017	Weight Percent
Uranium-235		1.063	Weight Percent
Uranium-236		.33	Weight Percent

** Exceeds Specifications
R Revised Result
The following samples have been composited:
175152, 175153, 175155, 175156, 175157
175158, 175159, 175160, 175161, 175162
This report has been printed 1 times.

Reported by:

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R

OAK RIDGE GASEOUS DIFFUSION PLANT
K-25 PROCESS SUPPORT DIVISION
URANIUM HEXAFLUORIDE ANALYSES

Producer: COGEMA
Date received in laboratory: 02-MAY-1984

Report Date: 2-JUL-1984
Sample Number: 175156
Cylinder Number: COG-733

Property	Specification Limits	Analysis	
	Minimum		
Uranium Hexafluoride	99.5	99.98	Weight percent
Uranium		67.60	Weight percent
	Maximum		
Cylinder Vapor Pressure	75	---	psia
Hydrocarbons, chlorocarbons, partially substituted halohydrocarbons	0.01	---	Mole Percent
Antimony	1	<1	uG/G U-normal
Bromine	5	<5	uG/G U-normal
Chlorine	100	10	uG/G U-normal
Niobium	1	<0.2	uG/G U-normal
Phosphorus	50	<20	uG/G U-normal
Ruthenium	1	<1	uG/G U-normal
Silicon	100	---	uG/G U-normal
Tantalum	1	<0.3	uG/G U-normal
Titanium	1	<0.3	uG/G U-normal
Elements forming non-volatile fluorides	300	20.0	uG/G U-normal
Chromium	1500	<470.0	uG/G U-235
Molybdenum	200	<50.0	uG/G U-235
Tungsten	200	<50.0	uG/G U-235
Vanadium	200	<30.0	uG/G U-235
Uranium-233	500	<100	uG/G U-235
Uranium-232	0.110	0.067	uG/G U-235
Boron equivalent cross section	8	NONE DET	uG/G U-normal
Fission product gamma	20	<5	Percent of
Fission product beta	10	0.22	aged natural U
Transuranic alpha	1500	2.0	DPM alpha/G U
Technetium		<0.005	uG/G U-normal
Uranium-234		.017	Weight Percent
Uranium-235		1.064	Weight Percent
Uranium-236		.34	Weight Percent

** Exceeds Specifications
R Revised Result
The following samples have been composited:
175152, 175153, 175155, 175156, 175157
175158, 175159, 175160, 175161, 175162
This report has been printed 1 times.

Reported by:

RR

OAK RIDGE GASEOUS DIFFUSION PLANT
K-25 PROCESS SUPPORT DIVISION
URANIUM HEXAFLUORIDE ANALYSES

Producer: COGEMA
Date received in laboratory: 02-MAY-1984

Report Date: 2-JUL-1984
Sample Number: 175155
Cylinder Number: COG-821

Property	Specification Limits	Analysis	
	Minimum		
Uranium Hexafluoride	99.5	100.00	Weight percent
Uranium		67.63	Weight percent
	Maximum		
Cylinder Vapor Pressure	75	---	psia
Hydrocarbons, chlorocarbons, partially substituted halohydrocarbons	0.01	---	Mole Percent
Antimony	1	<1	uG/G U-normal
Bromine	5	<5	uG/G U-normal
Chlorine	100	10	uG/G U-normal
Niobium	1	<0.2	uG/G U-normal
Phosphorus	50	<20	uG/G U-normal
Ruthenium	1	<1	uG/G U-normal
Silicon	100	---	uG/G U-normal
Tantalum	1	<0.3	uG/G U-normal
Titanium	1	<0.3	uG/G U-normal
Elements forming non-volatile fluorides	300	13.0	uG/G U-normal
Chromium	1500	<470.0	uG/G U-235
Molybdenum	200	<50.0	uG/G U-235
Tungsten	200	<50.0	uG/G U-235
Vanadium	200	<30.0	uG/G U-235
Uranium-233	500	<300	uG/G U-235
Uranium-232	0.110	0.077	uG/G U-235
Boron equivalent cross section	8	NONE DET	uG/G U-normal
Fission product gamma	20	<5	Percent of aged natural U
Fission product beta	10	0.22	
Transuranic alpha	1500	2.0	DPM alpha/G U
Technetium		<0.005	uG/G U-normal
Uranium-234		.017	Weight Percent
Uranium-235		1.064	Weight Percent
Uranium-236		.34	Weight Percent

** Exceeds Specifications
R Revised Result
The following samples have been composited:
175152, 175153, 175155, 175156, 175157
175158, 175159, 175160, 175161, 175162
This report has been printed 1 times.

Reported by:

Bo

RM

OAK RIDGE GASEOUS DIFFUSION PLANT
K-25 PROCESS SUPPORT DIVISION
URANIUM HEXAFLUORIDE ANALYSES

Producer: COGEMA
Date received in laboratory: 01-MAY-1984

Report Date: 2-JUL-1984
Sample Number: 175153
Cylinder Number: COG-825

Property	Specification Limits	Analysis	
	Minimum		
Uranium Hexafluoride	99.5	99.98	Weight percent
Uranium		67.61	Weight percent
	Maximum		
Cylinder Vapor Pressure	75	---	psia
Hydrocarbons, chlorocarbons, partially substituted halohydrocarbons	0.01	---	Mole Percent
Antimony	1	<1	uG/G U-normal
Bromine	5	<5	uG/G U-normal
Chlorine	100	10	uG/G U-normal
Niobium	1	<0.2	uG/G U-normal
Phosphorus	50	<20	uG/G U-normal
Ruthenium	1	<1	uG/G U-normal
Silicon	100	---	uG/G U-normal
Tantalum	1	<0.3	uG/G U-normal
Titanium	1	<0.3	uG/G U-normal
Elements forming non-volatile fluorides	300	33.0	uG/G U-normal
Chromium	1500	<470.0	uG/G U-235
Molybdenum	200	<50.0	uG/G U-235
Tungsten	200	<50.0	uG/G U-235
Vanadium	200	<30.0	uG/G U-235
Uranium-233	500	<200	uG/G U-235
Uranium-232	0.110	0.087	uG/G U-235
Boron equivalent cross section	8	NONE DET	uG/G U-normal
Fission product gamma	20	<5	Percent of
Fission product beta	10	0.22	ased natural U
Transuranic alpha	1500	2.0	DPM alpha/G U
Technetium		<0.005	uG/G U-normal
Uranium-234		.017	Weight Percent
Uranium-235		1.065	Weight Percent
Uranium-236		.33	Weight Percent

** Exceeds Specifications
R Revised Result
The following samples have been composited:
175152, 175153, 175155, 175156, 175157
175158, 175159, 175160, 175161, 175162
This report has been printed 1 times.

Reported by:

RR

OAK RIDGE GASEOUS DIFFUSION PLANT
K-25 PROCESS SUPPORT DIVISION
URANIUM HEXAFLUORIDE ANALYSES

Producer: COGEMA
Date received in laboratory: 02-MAY-1984

Report Date: 2-JUL-1984
Sample Number: 175157
Cylinder Number: COG-852

Property	Specification Limits	Analysis	
	Minimum		
Uranium Hexafluoride	99.5	99.95	Weight percent
Uranium		67.58	Weight percent
	Maximum		
Cylinder Vapor Pressure	75	---	psia
Hydrocarbons, chlorocarbons, partially substituted halohydrocarbons	0.01	---	Mole Percent
Antimony	1	<1	uG/G U-normal
Bromine	5	<5	uG/G U-normal
Chlorine	100	10	uG/G U-normal
Niobium	1	<0.2	uG/G U-normal
Phosphorus	50	<20	uG/G U-normal
Ruthenium	1	<1	uG/G U-normal
Silicon	100	---	uG/G U-normal
Tantalum	1	<0.3	uG/G U-normal
Titanium	1	<0.3	uG/G U-normal
Elements forming non-volatile fluorides	300	8.0	uG/G U-normal
Chromium	1500	<470.0	uG/G U-235
Molybdenum	200	<50.0	uG/G U-235
Tungsten	200	<50.0	uG/G U-235
Vanadium	200	<30.0	uG/G U-235
Uranium-233	500	<200	uG/G U-235
Uranium-232	0.110	0.052	uG/G U-235
Boron equivalent cross section	8	NONE DET	uG/G U-normal
Fission product gamma	20	<5	Percent of
Fission product beta	10	0.22	aged natural U
Transuranic alpha	1500	2.0	DPM alpha/G U
Technetium		<0.005	uG/G U-normal
Uranium-234		.018	Weight Percent
Uranium-235		1.064	Weight Percent
Uranium-236		.34	Weight Percent

** Exceeds Specifications
R Revised Result
The following samples have been composited:
175152, 175153, 175155, 175156, 175157
175158, 175159, 175160, 175161, 175162
This report has been printed 2 times.

Reported by: